

UNIVERSITY SCHOOL OF  
INFORMATION AND COMMUNICATION TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**PROGRAMME STRUCTURE**

M.TECH. COMPUTER SCIENCE AND ENGINEERING  
TWO YEAR WEEKEND PROGRAMME

**2022-2024**



GAUTAM BUDDHA UNIVERSITY  
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

**Semester 1**

S.No.	Course Code	Course Name	L	T	P	Credits	Types	
1	WCS521	Advanced Data Base Management System	3	0	0	3	CC1	
2	WCS523	Advanced Operating System	3	0	0	3	CC2	
3	WCS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3	
4	WCS527	Research Techniques in ICT	3	0	0	3	CC4	
5	WCS529	Java Programming	3	0	0	3	CC5	
6	WCS531	Graph Theory	3	0	0	3	CC6	
7	ES415	Energy and Environment	3	0	0	3	OE1 /AECC	
8	WCS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1	
9	WCS583	Java Programming Lab	0	0	3	2	CC-L2 / SEC	
10	GP	General Proficiency	Non Credit					
<b>Total Hours and Credits</b>			<b>21</b>	<b>1</b>	<b>6</b>	<b>26</b>		

**Semester 2**

S.No.	Course Code	Course	L	T	P	Credits	Types	
1	WCS522	Python Programming	3	0	0	3	CC7	
2	WCS524	Advanced Software Engineering	3	0	0	3	CC8	
3	WCS526	Advanced Computer Architecture	3	0	0	3	CC9	
4	WCS528	Problem Solving Using Artificial Intelligence	3	0	0	3	CC1	
5		Elective-1	3	0	0	3	E1 / DSE	
6		Elective-2	3	0	0	3	E2 / DSE	
7		Generic Elective	3	1	0	4	GE1	
8	WCS582	Python Programming Lab	0	0	3	2	CC-L3 / SEC	
9	WCS584	Open Source Software Systems Lab	0	0	3	2	CC-L4	
10	GP	General Proficiency	Non Credit					
<b>Total Hours and Credits</b>			<b>21</b>	<b>1</b>	<b>6</b>	<b>26</b>		

**Semester 3**

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	WCS621	Computer Network	3	0	0	3	CC11
2	WCS623	Data Analytics	3	0	0	3	CC12
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	WCS681	Computer Network Lab	0	0	3	2	CC-L5
6	WCS683	Summer Project	0	0	8	4	SP / E
7	WCS691	Dissertation Part - I	0	0	16	8	DP1 / E
8	GP	General Proficiency	Non Credit				
<b>Total Hours and Credits</b>			<b>12</b>	<b>0</b>	<b>27</b>	<b>26</b>	

**Semester 4**

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	WCS692	Dissertation Part - II	0	0	52	26	DP2 / E
2	GP	General Proficiency	Non Credit				
<b>Total Hours and Credits</b>			<b>0</b>	<b>0</b>	<b>52</b>	<b>26</b>	

GRAND TOTAL OF CREDITS = 104

**ELECTIVES FROM DCSE**

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	WCS530	Natural Language Processing	3	0	0	3	E1
2	WCS532	Parallel Comutation and Applications	3	0	0	3	E1
3	WCS534	Computer Vision	3	0	0	3	E1
4	WCS536	Expert Systems	3	0	0	3	E1
5	WCS538	Soft Computing Techniques	3	0	0	3	E2
6	WCS540	Data Science	3	0	0	3	E2
7	WCS542	Blockchain Technology	3	0	0	3	E2
8	WCS544	Software Quality Assurance	3	0	0	3	E2
9	WCS625	Embedded System Design	3	0	0	3	E3
10	WCS627	Applied Machine Learning	3	0	0	3	E3
11	WCS629	Blockchain Technology and Software Systems	3	0	0	3	E3
12	WCS631	Data Science	3	0	0	3	E3
13	WCS633	AI Enabled Cyber Security	3	0	0	3	E4
14	WCS635	Big Data Platforms and Analytics	3	0	0	3	E4
15	WCS637	Internet of Things	3	0	0	3	E4
16	WCS639	Edge Computing	3	0	0	3	E4

**OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS**

17	ES415	Energy and Environment	3	0	0	3	OE1
18	EN531	Language, Culture and Society	3	0	0	3	OE2
19	MA402	Modeling and Simulation	3	1	0	4	GE1
20	MA416	Probability and Stochastic Process	3	1	0	4	GE1

**WCS** Weekend Computer Science for Course Code**CC** Core Course from USICT for Type of Course**CC-L** Core Course Lab from USICT for Type of Course**GE** General Elective from related discipline of other Deptt./School**AECC** Ability Enhancement Compulsary Course**FC** Foundation Course**SEC** Skill Enhancement Course**E** Elective**DP1** Dissertation Part 1**DP2** Dissertation Part 2

**OE** Open Elective from other discipline of other Deptt./School

**SP** Summer Project

**DSE** Discipline Specific Course